D&D

MANUELA™ suite

OUR SERVICES

Radiologic and dimensional scans conducted on your premises by an experienced team in close collaboration with your own team

RESULTS

Provides exact radiation dose rate data at precise points in space that are detailed and reproducible

USEFUL FOR

ALARA planning during facility operations

Scoping and site characterization during the D&D planning phase

Remedial action support during active decommissioning work

Final status survey and demonstration of end state compliance for license termination

The MANUELA handheld metrology and radiological mapping tool

What is MANUELA?

The Mobile Apparatus for Nuclear Expertise Localization Assistance, (MANUELA) is a handheld tool used for simultaneous 3D measurements for metrology and radiological mapping of nuclear facilities. Using 3D reconstruction of an existing environment, radiological measurements such as dose rate and gamma spectra of emissions performed by an Orano operator are precisely positioned within ¾". Once processed with PoStLAM visualization software, the MANUELA data is used to identify the location of hot spots, their characteristics, and the intensity of gamma radiation within the areas of measurement.

What is MANUELA used for?

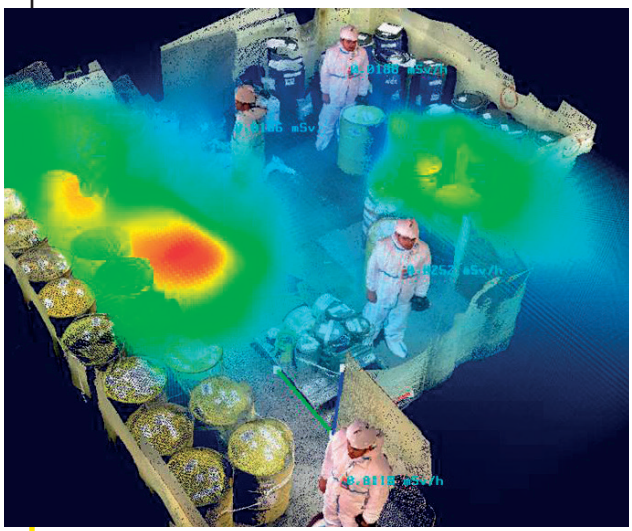
Once Orano collects and analyzes the data, it is presented to operational teams or field crews to better understand the physical arrangement of an area. Coupled with PoStLAM software, MANUELA performs detailed analyses for the localization and remediation of the source term.

In addition to a spatial orientation of the area of concern, accessibility issues can also be addressed concurrently to facilitate the installation of scaffolding, removal of grating, or other job site preparation needed to safely and efficiently remediate the source of the activity in an ALARA manner.

Capturing detailed radiological survey data is an essential function in detailed ALARA planning, developing remedial action plans and demonstrating compliance to clean up criteria. MANUELA provides exact radiation dose rate data at precise points in space that are detailed and reproducible.

In the particular case of the decommissioning process, MANUELA can be used to validate progress and continue to refine the work activities to optimize the efforts of the crew, which reduces downtime waiting for survey results, whereas traditional survey methodology relies on a physical survey to be performed and the data transcribed onto survey maps that are only two dimensional. The traditional format tends to be inaccurate and difficult to interpret the precise location(s) of hot spots or generalized dose rates.

MANUELA also compiles all of the relevant survey data into a downloadable table format which includes the measurement identification number, time stamp, point space location on the XYZ plane, and the dose rate value.



Coupled with PoStLAM, MANUELA provides exact, detailed, and reproducible radiation dose rate data at precise points in space

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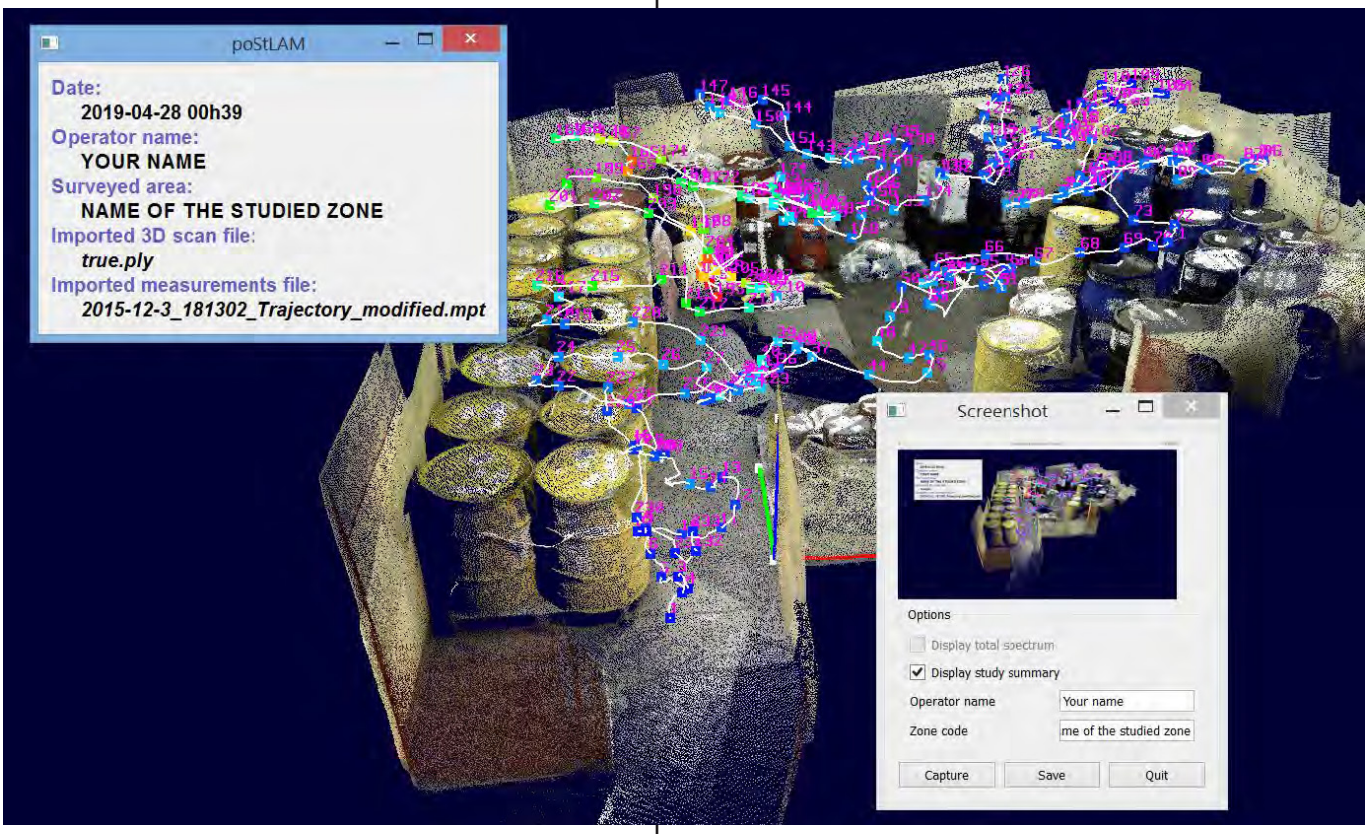


Dose points are indicated along the scan path that provide exact locations and dose rates at specific points in space

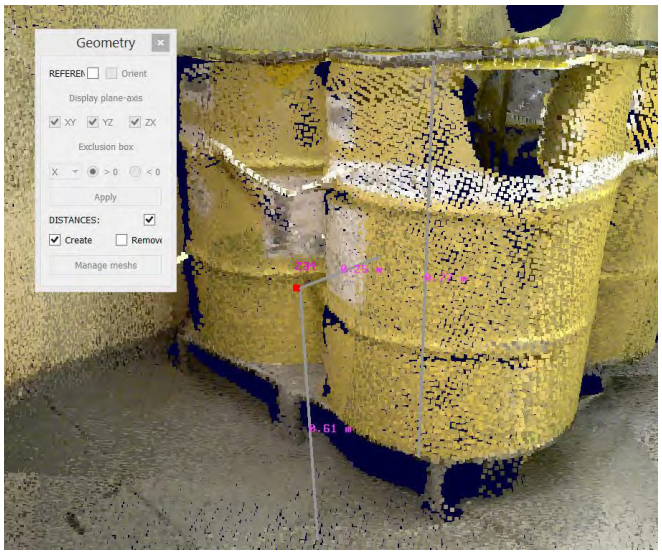
Key benefits of MANUELA suite

MANUELA handheld

- Simultaneous 3D radiological and topographical mapping
- Positioning of measurement points in the 3D environment as real
- Major increase of radiological data density during mapping

PoStLAM software

- Visualization of radiological hot spots and radiation intensity distribution
- Spatial identification of location of irradiation sources and characteristics



Virtual telemetry tools

Watch our presentation video for MANUELA

MANUELA™ is patent-protected.

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